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ABSTRACT

According to participants at a conference on a more productive work force, the United States faces many challenges in the workplace. The workplace is changing rapidly, responding to technological advances, and facing increased global competition. Change is the norm, and the United States' competitive advantage increasingly will depend on the creation of value-added products and services. A value-added economy, in turn, demands higher-order skills of its workers. However, the work force is shrinking and aging, and most new workers will soon be minorities or females. In addition, there is little coordination between business and postsecondary institutions and many overlapping or gapping training programs are provided. Some of the solutions are to: (1) view learning as an uninterrupted process; (2) focus on individuals, not institutions; (3) build demand-driven systems and raise standards; and (4) increase public and private investments in postsecondary education. The future depends on how these solutions are implemented. It will take years, but the success of the country will be measured by the outcomes of these initiatives. (The conference agenda and a list of participants is included in this report.) (KC)

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A MORE PRODUCTIVE WORKFORCE

Challenge for Post-Secondary Education and Its Partners

Highlights of a Conference Sponsored by

National Governors' Association

American Council on Education

The College Board

Council for Adult and Experiential Learning

Little Rock, Arkansas

May 1989

CE 054 959

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PREFACE

Meet the Blocks.

Harvey, age 45. For the past 27 years, he's worked on a telephone company assembly line, most recently responsible for attaching receivers to headsets. He knows that many similar jobs have moved overseas or been assumed by computer-controlled robots. Looking ahead to the inevitable loss of his own job, he thinks he might like to learn how to get into customer-service work but is frightened of such a major transition.

Sharon, age 45. Before having children, she taught second grade for two years. Now that both of her children are on their own, she'd like to begin a second career as a high school guidance counselor. She has read extensively in the field of psychology and counseling, but has no idea whether or how that learning can be applied to a counseling credential.

John, age 24. After graduating from college, he started a small business specializing in the home delivery of gourmet meals. He now has 32 employees, including five managers who need to be trained to operate the order-processing software. The local community college is all the way on the other side of the county and offers classes only during business hours. He cannot afford to have his skeletal workforce miss work.

Kathy, age 20. A high-school drop-out, she has held dozens of odd jobs over the past four years, mostly waitressing and serving as a temporary receptionist. She now thinks she'd like to become a nurse, but doesn't know what it will take to get her degree.

Aaron, age 68. Harvey's father, he is in the third year of his mandatory retirement from the local public works department, where he was a design engineer for 40 years. He's bored and has heard that the county schools have a shortage of math and science teachers. He'd like to volunteer, but has been told he needs a teacher's certificate.

And Mavis, age 55. The Blocks' Peruvian-born maid would like to claim her share of the American Dream. She has her green card and speaks English, but has only a third-grade education and few skills other than homemaking. She has absolutely no idea where to turn for assistance.

A fictitious family, to be sure. But there is nothing particularly extraordinary about their situations.

Now imagine the following scenario.

One Thursday evening the Block family goes to the local public library where a community information service counselor from the county's new Human Resource Department reviews each of their cases and offers some preliminary advice.

As a result, Harvey learns that his union dues are funding a worker-centered retraining program administered by the union and company. After having his interests and capabilities assessed, he decides to enroll in sales/marketing classes at the local community college.

Sharon learns that there are means of assessing the learning she acquired through independent reading and that information on applying her learning to a counseling credential is available at a local university.

John learns that a new office park catering to small professional businesses such as his has just opened. The developers are advertising their intention to provide on-site classes in such subjects as software and accounting. John is considering a long-term lease.

Kathy learns that she can begin to work immediately on earning a high school equivalency diploma through the local community college's program for preparing adults to take the tests of General Educational Development (GED). Furthermore, she learns that career counseling and information are available to her free of charge at the community college.

Aaron learns that, for retirees with special skills, the local schools are waiving the formal teacher-certification requirement in lieu of an interview. He expects to start teaching in September.

And Mavis has enrolled in some basic literacy classes offered at the local library. More

importantly, she is working closely with a counselor, an advocate who is monitoring her progress on a regular basis and helping her identify realistic options for a career switch.

Unfortunately, happy endings such as these are all too rare. More than likely, members of the extended Block family would have encountered numerous obstacles in their use of the education and training system to improve their standards of living—institutions unwilling to cooperate, individuals unwilling (or unable) to help, plus apathy, resistance, ignorance. In short, they most likely would have encountered a system of education and training created for another era and unresponsive to change.

It was to help rectify this situation—to make the Block family's "happy ending" less of an anomaly and more of the norm—that state government, higher education, and labor and business leaders gathered in Little Rock, Arkansas this past spring.

THE CHALLENGES

The American workplace is changing rapidly. On the one hand, it is responding to scientific and technological advances that are transforming both the type of work being done and the way it is being done. On the other hand, the workplace is adapting to the challenges posed by the rapid productivity gains by foreign competitors who are shifting the balance of global economic power.

In this world of uncertainty, two trends are clear. One, change is the norm: technologies are creating new industries and dramatically changing old ones. Indeed, half of the jobs that will exist in the year 2000 do not exist yet. And two, America's competitive advantage increasingly will depend on the creation of high-value-added products and services: everything else can be, and is being, produced more competitively in the third world (by low-wage employees) or in the developed world (by computer-controlled factories that can produce high-quality products around-the-clock).

A value-added economy, in turn, demands higher-order skills of its workers. In the early 1900s, when a premium was placed on brute strength and dexterity, 30 percent of the U.S. workers were laborers and only 10 percent managers. Today, the ratios are reversed, with nearly 3 of 10 workers in managerial positions.

In the future, according to the American Society for Training and Development (ASTD), employers will most desire workers who have excellent reading, writing and computation skills, and who:

> "Can learn the particular skills of an available job—who have 'learned how to learn.'
>
> Will hear the key points that make up a customer's concerns (listening) and who can convey an adequate response (oral communications).
>
> Can think on their feet (problem solving) and who can come up with innovative solutions when needed (creative thinking).
>
> Have pride in themselves and their potential to be successful (self-esteem); who know how to get things done (goal setting/motivation); and who have some sense of skills needed to perform well in the workplace (personal and career development).
>
> Can get along with customers, suppliers, or co-workers (interpersonal and negotiation skills); who can work with others to achieve a goal (teamwork); who have some sense of where the organization is headed and what they must do to make a contribution (organizational effectiveness); and who can assume responsibility and motivate co-workers when necessary (leadership)."

While skill requirements and jobs are changing rapidly, the composition of the workforce itself is comparatively static. Indeed, 75–80 percent of the workers in the year 2000 already have left high school—they are either on the job or looking for one. Unlike the 1960s, 1970s and early

1980s, when the workforce expanded dramatically with the addition of millions of baby-boomers getting their first job, the labor pool will grow considerably more slowly for the foreseeable future. Thus, America's competitive success or failure will depend largely on the contributions of those already working.

Unfortunately, the United States is doing a poor job of helping today's workers acquire the skills they will need tomorrow. To begin with, 15–20 million adult workers are functionally illiterate, having only 7th- or 8th-grade skills. An estimated 1 million additional functional illiterates are joining the workforce each year. Without remediation, these employees cannot hope to acquire the higher-order skills needed to boost their productivity.

There is widespread agreement that employer-sponsored training—whether conducted on-site or off, whether financed in full or in part by companies—is the most effective in upgrading skills. Yet, there is ample evidence that not enough U.S. companies provide enough training to enough workers. In 1985, the U.S. invested about

$30 billion in formal employer-sponsored training, only half as much as they invested in plant and equipment. In 1983, only slightly more than one-third of American workers reported receiving training to improve their job skills. Furthermore, training is much more likely to be offered by large corporations than small businesses, although the latter account for about 70 percent of the new jobs being created.

Also of concern, the dispersion of training is uneven. Employers tend to train their best-educated employees: 79 percent of college graduates receive training, compared to only 71 percent of high school graduates and only 45 percent of high school dropouts. Employees trained in one job are more likely than other new employees to be trained in subsequent jobs.

Economically disadvantaged Americans, arguably those most in need, are the least likely to receive training; only about 10 percent receive postsecondary training of any kind and less than 3 percent receive training from their employers. Non-white employees are less likely to be trained than whites, and women (except in transportation) are less likely to receive training than men. Given that an estimated 80–85 percent of new workers before the year 2000 are likely to be female and/or minorities, it will be increasingly incumbent on employers—as well as postsecondary institutions—to address the special education and training requirements of these populations.

The inadequate response of employers is only one facet of the human-resource-development challenge facing the United States. The postsecondary education community has not responded well either. For one, businesses have not adequately expressed their changing skills needs to postsecondary institutions. Within postsecondary education, four-year research universities tend to downplay the contributions of two-year community colleges, which, in turn, tend to slight the role of the proprietary schools. As Robert Atwell (American Council on Education) pointed out, "graduate education has become largely a wasteland that's still producing college teachers trained to deal with 18–22-year-olds with 1300 SAT scores. Unfortunately, that single model of excellence is long gone."

The dearth of communications, between business and postsecondary institutions and within the postsecondary community, merely represents a far more significant problem: fragmented responsibility and an uncoordinated approach. Unlike European countries, which have coherent and comprehensive programs to address the development needs of its citizens, the U.S. system is characterized by its ad hoc approach.

The following table briefly summarizes the many postsecondary options available to American learners.

Table 1
MATRIX OF PROVIDERS

POSTSECONDARY

Four-Year Colleges and Universities
Degree-granting institutions that offer traditional courses of study for undergraduates and graduates.

Two-Year Colleges and Degree-Granting Vocational Technical Institutes
Nearly 5 million students (including about 55 percent of all college freshmen) enrolled in more than 1,200 community colleges during the 1987–88 school year.

Average student age is 29.

Non-Collegiate Vocational Schools
Proprietary schools, technical institutions and specialized schools offer training in such fields as cosmetology, computers, auto and aircraft mechanics, and truck-driving.

ADULT SECONDARY

High School Carnegie Unit
Adults attend day or evening classes to earn credits.

Offered in 42 states.

General Educational Development (GED)
High school equivalency program of five tests administered by the American Council on Education.

Awards one-sixth of all U.S. high school diplomas—471,500 in 1988. Offered in 50 states.

External High School Diploma Program
A competency-based high school diploma program that credentials generalized life-skill competencies.

Offered in 11 states.

Home Study
Accredited correspondence courses that help adults earn high school credit.

Program offered for high school diplomas in 13 states.

ON-THE-JOB INSTRUCTION

Private Business and Industry Training
Formal and informal training, usually focused on occupational skills, provided on-site and off.

Apprenticeship
Classroom instruction and hands-on learning or structured on-the-job training.

Offered in over 800 trades throughout the country.

Military Training
The armed forces provide a wide range of instruction, from basic recruit training to specialized skill training.

FACILITATING PROGRAMS

Federal second-chance training programs, such as the Job Training Partnership Act (JTPA) of 1982, the Economic Dislocation and Worker Adjustment Act (EDWAA), the Job Opportunities and Basic Skills Training (JOBS) program, and the Targeted Jobs Tax Credit.

State programs that support employer-specific skill training, such as the Bay State Skills Corporation, the California Employment and Training Panel and the Prairie State 2000 Authority (Illinois).

Labor-management agreements, ranging from apprenticeships to programs that train and retrain active workers (e.g., UAW-Ford, CWA (Communications Workers of America), AT&T, CWA and US West).

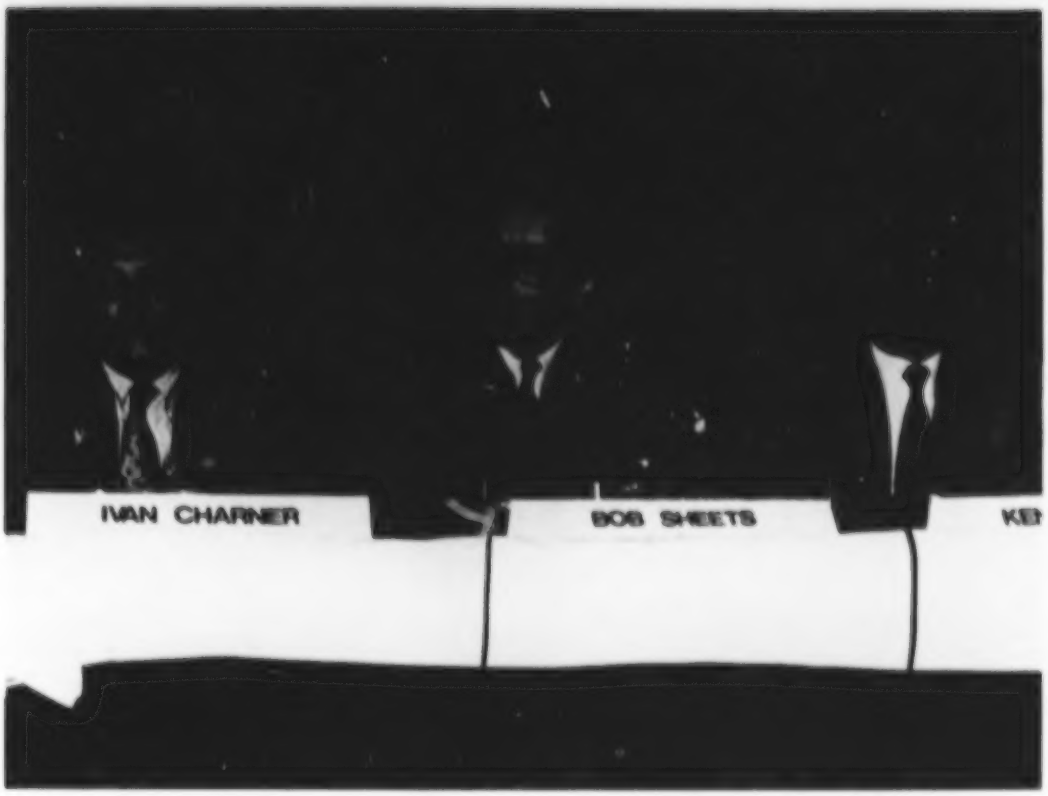
Source: Johnston, 1989

The multiple education and training options are dazzling in their diversity. Unfortunately, though, there is precious little coordination among program providers, who too often are more concerned about protecting their turf than about seeking opportunities to work with others to better serve learners.

Federal and state employment, training, and welfare policies are inconsistent, contradictory and too often hostile to the acquisition of new skills. Despite recent improvements, some workers still face choices that might not be in their best interest in the long run. Unemployed persons seeking retraining must either accept short-term training or forgo unemployment benefits, choosing to take a quick job in the hope of being able to pursue self-supported retraining. That is because many states deny benefits to those not enrolled in approved training programs, which tend to be limited to skill- or job-specific courses rather than to longer-term training, which leads to the receipt of a recognized credential such as an associate degree.

It is extremely difficult for individuals to navigate through this maze, to sort out options. Knowledgeable advocates and ombudsmen are rare. Even when appropriate education and training programs are available at convenient times and locations, too few employees are motivated to take advantage of the opportunity: they remain wedded to the idea that schooling is something imposed on persons between the ages of 5 and 18. For workers whose early experience with the educational system was unhappy, the notion of getting a "booster shot of knowledge" seems about as appealing as a visit to the doctor.

Finally, fragmented responsibilities, inconsistent policies and institutional turf wars underscore perhaps the fundamental overarching problem— the lack of a complete vision that considers the human-resource-development system as a whole, as *a single system of learning that serves individuals* beginning at preschool and continuing throughout their careers. Such a holistic, learner-oriented view would help break down barriers that now compartmentalize phases of learning by provider (K-12, two-year postsecondary, four-year postsecondary, employers, military, etc.). Furthermore, this new view would take into account such related factors as child care, health care and low-cost transportation to and from work.



The diversity of providers is impressive and is acknowledged as one of the strengths of the U.S. system. Yet, diversity is a strength only if all partners are pulling in the same general direction. The aim of the Little Rock conference was to begin to suggest the direction in which education and training providers should be pulling (common goals) as well as to identify some specific proposals for getting there (pragmatic actions). As such, the conference provided an opportunity to define a common public-private agenda.

Indeed, this absence of a common agenda for human resource development is one major reason why reform of the U.S. education and training system, a national priority for the past several years, has proceeded so slowly. As the Business-Higher Education Forum pointed out in a recent report *(American Potential: The Human Dimension)*:

> [T]he remarkable educational reform movement of the 1980s has been fragmented and often at odds with itself. If our leaders and our people believe that a broad consensus exists on how to proceed, they are, unfortunately, mistaken.

The point is made dramatically in a background paper prepared for the Forum. Some 20 major reports on education and the economy were examined; together they offer 285 discrete recommendations. Among these 285, only nine enjoy the support of five or more of the 20 reports. More to the point, over 70 percent of the specific recommendations have only a single champion standing behind them. It is little wonder that progress in raising student achievement has been much too slow: As different pilots seize the helm of educational reform, the ship goes round in circles.

There is growing recognition that the United States cannot afford such a haphazard approach—not when labor shortages in a number of key skills areas are growing and not when foreign competitors are continuing to narrow America's once-commanding productivity and technological advantages.

While stating the aim of the conference and emphasizing its importance, Gov. Bill Clinton (Arkansas) identified what could be the supreme irony of the current age. In predicting that the 1980s will be remembered as the decade when American ideals of political democracy and market economics took hold around the world—from Latin America to the Soviet bloc—it might also be remembered as the decade when the United States began to decline competitively, primarily due to inadequate attention to its human resources. "It would be ironic and tragic if, after four decades of concerted efforts, political democracy and market economics are expanding around the world but America itself was no longer able to take advantage of that progress."

Thankfully, there are a number of hopeful signs, pockets of excellence that suggest the United States is rising to the human resource challenge. It is on these fresh ideas, modern approaches and model programs that conference participants chose to focus.

SOLUTIONS

Conference participants were asked to address one basic question: How can state policymakers, educators, business executives and labor leaders most effectively help educate and train Americans for the demands of a rapidly changing international labor market? They responded with four broad answers.

- First, view the learning experience as an uninterrupted process beginning in the earliest elementary grades and continuing throughout an individual's lifetime.
- Second, focus on individuals, not institutions.
- Third, build demand-driven systems and raise standards.
- And fourth, increase public and private investments in human resource development.

Within each of these four areas, conference participants recommended a number of specific solutions.

Answer 1: View Learning as an Uninterrupted Process

Learning needs to be seen as a constant process of acquiring new knowledge and mastering new skills—from children learning the higher-order basic skills in elementary school to parents building advanced skills on the job. As such, learning is seen as a lifelong, multigenerational process.

Such a holistic perspective about human resource development, however, goes beyond classes and courses that provide education and training. It recognizes, for instance, that parents cannot go back to school without affordable, convenient daycare for their children . . . that unemployed workers are unlikely to attend classes if, in the process, they lose their unemployment insurance benefits . . . that employees are unlikely to go to night school if they have to take three or four buses to get from their inner-city job to the suburban community college.

One of the primary challenges is to break down the institutional barriers that hinder people from getting the services they need when they need them. In so doing, the goal is to create an environment that encourages the development of human potential—throughout an individual's life. Participants focused on several promising solutions.

Establish "Community Learning Systems"

Each community should establish cooperative relationships among all providers and users of education to create "one system of learning and credentialing."

Such "community learning systems" would have three goals: to help communities identify the skills, knowledge, and competencies needed by local employers; to identify the providers that will offer the education and training to teach and credential the needed skills, knowledge, and competencies; and to assist learners in making educational and occupational choices that are consistent with their personal goals and

capabilities and that contribute to meeting the skill and knowledge needs of their community's employers.

Members of this system would include major non-collegiate providers or sponsors of postsecondary education and training, such as corporations, labor unions, the military, government agencies, and professional and voluntary associations; some vocational schools, technical institutes, colleges, and universities; and organizations that need the services of the system.

The system's clients would be adult learners. The link among the providers would be the commitment to formally recognize the learning their "students" have acquired.

Thus, the system would not necessarily provide more education and training than is currently provided, but it would identify more effectively the education and training needs of the workforce and coordinate or target the efforts of providers who can meet those needs. Costly duplication of planning and offerings would be avoided.

Along similar lines, others suggested establishing State and Local Councils of Worklife Education and Training to encourage linkages among employers, unions and educators—the goal being to better serve citizens wanting to upgrade their skills.

Reorganize Government Agencies

Some participants felt that the informal coalition-building represented by "Community Learning Systems" should be supplemented by a more formal and comprehensive restructuring of government services. They recommended establishing Departments of Human Resource Development at the state and federal levels. Such entities would consolidate the often-overlapping public responsibilities of the departments of education, health and labor.

At the very least, such a pooling of resources would make it less likely that a citizen would fall through a crack between agencies, or be trapped in a "Catch-22" bind of having to choose, say, between a non-approved training program (such as a basic English or mathematics course) on the one hand and unemployment benefits on the other. Furthermore, it was hoped that such a streamlining in the public sector would encourage a similar streamlining among non-governmental providers.

Facilitate the Transition from School to Work

Viewing learning as an uninterrupted process means closing the gaps in the current system, sealing the "holes" in the "learning pipeline." The transition from high school to the first job is one of the more prominent gaps, a time when many individuals flounder.

Participants urged the expanded use of apprenticeship and pre-apprenticeship programs to smooth this transition from school to work for non-college-bound students. States were encouraged to work with the federal government to restructure and expand apprenticeship programs and school-based, secondary and postsecondary vocational education and job training.

For high school students who do not plan to go to college immediately, states should establish pre-apprenticeship, school-to-work transition programs. These might include a fifth-year option to develop work-related skills and the increased use of internships in work settings. Furthermore, to allow students in such programs to earn credits toward degrees at community colleges and universities, states should then establish special articulation programs between postsecondary schools and apprenticeship programs.

Improve Workplace Literacy

For the estimated 15–20 million functionally illiterate adult workers, transition-to-work programs won't help. They are already out of school and either on the job or looking for work. To give this population the basic skills they never learned during elementary or secondary school, the adult-education system needs to be upgraded significantly.

Douglas Fraser (Wayne State University) underscored the importance of a solid grounding in the basic skills by recalling the phenomenally successful entry of thousands of American women into the factories during World War II. "Women went from running vacuum cleaners to running milling plants at Desoto because they had a good basic high school education," he said. Unfortunately, too many factories are currently being staffed by employees with lower-level skills than those "Rosie the Riveters."

To strengthen the quality of the adult basic education system, participants recommended increased investments in staff, accountability systems and curriculum development—so that adult ed is considered a mainstream aspect of education, not a series of courses delivered out of a trailer in back of the grade school. Thus, part of the challenge is to destigmatize adult illiteracy instruction by repackaging programs and services. One positive step would be to identify and publicize success stories that demonstrate the value of investments in workplace-literacy programs.

In addition, communities must develop better ways of recruiting potential students and retraining them until they achieve workplace literacy. And state and local officials should ensure that workplace-literacy programs are included as part of coordinated efforts to address employer-employee needs.

Focus on Intergenerational Programs

To reinforce the idea of learning as an uninterrupted process, participants encouraged the expansion of programs that provide opportunities for intergenerational learning. Joint parent-child educational programs should be fostered—so that illiterate parents are taught to read at the same time their children are. There should be more plentiful opportunities to help parents learn how to be better parents. And simply by providing a number of intergenerational services under a single roof, communities could make a valuable contribution. In New York, for instance, state-provided incentive funds are being used to set up Access Centers that offer career counseling, child care and education at a single location.

Engage the Elderly

Finally, implementing a vision of lifelong learning will mean more fully reintegrating the elderly into the workforce, a necessity because of labor shortages in some occupations, shortages exacerbated by the Baby Bust. In order to take advantage of the skills of elderly Americans—many of whom are unhappy with their premature, mandatory retirements—participants identified priorities for each sector.

Employers need to be educated about aging issues regarding benefits, age-discrimination laws and the like. Business schools

could help in this regard by developing and teaching new courses such as "managing the older workforce." Policymakers and employers need to create an age-neutral policy toward training and retraining. And federal lawmakers should consider funding demonstration projects for training and educating older workers.

* * * *

Answer 2: Focus on Individuals, Not Institutions

Focusing on individuals, not institutions, means worrying less about the accreditation of institutions and more on how to creatively deliver customized services to more learners. It means recognizing and rewarding learning that occurs outside formal schooling—on the job and elsewhere.

And it means that individuals will have to assume greater responsibility for their own lifelong learning. As Morris Keeton (President, Council for Adult and Experiential Learning) noted: "Employers can't guarantee jobs for life. But they can provide training opportunities and encourage their employees to take advantage of them. One of the challenges is to change attitudes so that employees see that they're ultimately responsible for their own education." Conference participants singled out several approaches for special consideration.

Encourage Student-Centered Learning

One way to customize learning is to encourage schools to become more student-centered, with special attention to "at-risk" students. Among the specific suggestions, participants recommended that schools eliminate the general-track (cafeteria) option and establish multiple avenues and alternative programs of equal status for getting through school.

Students should have more flexibility to learn at their own pace. In this regard, the expanded use of instructional technology could be invaluable. For instance, literacy labs, which combine language, computer and technology instruction, have been helpful in some settings. So have television-delivery systems, such as the Public Broadcasting System's (PBS) Adult Learning Satellite and its "education pipeline," which will make it possible to deliver any kind of text, images, research and computer software programming through the phone lines.

Furthermore, educators should make greater use of peer counseling, case management, mentoring, support services and special programs for special needs (e.g., health, daycare and pregnancy counseling) to help boost student performance.

Encourage Worker-Centered Learning

The student-centered approach to learning should be extended to the workplace—so that employees have an opportunity to receive the counseling, mentoring and training they want and need, at appropriate times and convenient places.

Conference participants applauded the successful approach of the Council for Adult and Experiential Learning (CAEL) in pioneering the use of joint ventures and partnerships to provide individually chosen education and training to thousands of workers across the country.

Among the organizations that have successfully used CAEL's joint ventures are the UAW-Ford National Development and Training Center, the US West Communications/CWA/IBEW "Pathways to the Future" program, the Bell of Pennsylvania/ CWA/ IBEW joint training advisory board, Scott Paper Company, the Food and Drug Administration, the Philadelphia City Department of Highways, the Bricklayers' Union, the United Food and Commercial Workers, and the AT&T/CWA/IBEW Alliance for Employee Growth and Development.

Although each CAEL joint venture develops its own refinements, the core program includes several common elements. To begin with, the focus is on the individual worker's learning needs, aptitudes and skills. Individuals are responsible for choosing their own learning plan and for attending classes on their own time. An important feature of the plan is that it protects the privacy of individual employee's plans and educational/career activities so that counseling/career plans and performance in courses do not become part of company personnel records.

The company, in turn, provides broad education and career counseling, makes a direct, personal appeal to workers to voluntarily "Return to Learning" with company or company/union support, and ensures that courses and programs are delivered to workers at convenient places and times.

For its part, CAEL plays a key role in bringing together the business, labor and postsecondary education sectors; in assembling the network of qualified local education/training institutions; in developing a stronger communications network among educational providers so that they know what each other offers; in training counselors from educational institutions to assist workers in specific industries; and in working with state governments to raise the "capacity building" funds that are often needed to help the educational institutions become positioned to work in the joint venture.

Expand Outreach and Advocacy

In order to reach individuals who might otherwise not take advantage of available learning opportunities, states and communities will need to adopt a more aggressive approach of outreach, advocacy and counseling, targeted at "at-risk" populations. Several specific proposals were advanced.

Community Information Centers. To make sure individuals know about available opportunities and to help them sift through options, communities should establish a comprehensive service-delivery system. These would comprise permanent community information centers located in libraries, schools, colleges, businesses, storefronts, housing developments, shopping centers and religious organizations where advocacy, counseling and outreach can take place. To make information even more accessible, Mobile Education Services Headquarter (MESH) units could be formed to provide outreach, advocacy and counseling services to "at-risk" adults at convenient locations, such as shopping malls and outside churches.

Statewide Hotline. To support these local efforts, a state-level system of 800-LEARN numbers should be instituted to answer questions about where to go for counseling, information, education, training, and/or advocacy. This number should be disseminated widely in subway stations, liquor stores, on buses, in newspapers, on radio and television, and through the welfare and unemployment insurance system.

Worklife Education and Training Centers. Beyond providing information, community-based, satellite worklife education and training centers should be established to offer education and training courses; provide support services such as child care and transportation; assist with job search and placement; and offer a wide array of these services to "at-risk" adults who receive social welfare, unemployment insurance and other government benefits that usually make them ineligible to participate in education and training programs.

Media Campaign. To encourage the use of these services, a comprehensive media campaign should be mounted to help change attitudes of "at-risk" adults about education and training, much as the character of Benny on *L.A. Law* has changed the attitudes of the American people about the mentally retarded.

Revise the Credentialing Process

The credentialing process should be revised to more appropriately recognize and reward learning that occurs on the job and elsewhere outside formal schooling. Degree-granting colleges and universities now have a virtual monopoly on credentialing, but often do not recognize learning that has taken place in vocational or technical schools or on the job—even though these

skills often have more workplace relevance than classroom learning. The competence of the individual, not the prestige of the degree-granting institution, should be the mark of distinction.

Virtually everyone would benefit from this alternative credentialing system. Employers would have a clearer idea of the work-related skills of their employees. Employees, by having an alternative to more traditional two- and four-year schools, would have additional incentives to acquire what economist Pat Choate calls the "booster shots of knowledge" so necessary to productive performance in a competitive economy and changing workplace. And the more entrepreneurial educators would benefit by being given new incentives to develop more demand-driven, customized courses for this expanded pool of learners.

* * * *

Answer 3: Build Demand-Driven Systems and Raise Standards

Accountability and quality control are difficult enough to achieve within the traditional, institution-centered system of credentialing and accreditation. To the extent that the system is made more flexible—geared more to the individual learner—the critical importance of an acceptable and agreed-upon method of quality control increases. Participants suggested a number of strategies. Several stood out.

Promote Workplace-Based Training

Participants agreed that workplace-based training is the most effective way to learn, but lamented that too many businesses underinvest in employee training and upgrading. To help remedy this situation, it was suggested that states take the lead by encouraging greater private investment in training and retraining; by encouraging companies to develop programs that are integrated into their specific competitive strategies; and by improving working relationships among training providers and users through such mechanisms as the adoption of formal competency requirements for entry-level positions.

Furthermore, participants suggested that states look to such innovative productivity-improvement programs as the Michigan Modernization Service, for use in developing more effective workplace-based training systems.

Small Business. A special emphasis should be placed on programs that encourage small businesses to provide more training to their employees. Small businesses create about 70 percent of new jobs, but, for a variety of reasons, are less likely than larger firms to provide training.

Among the challenges is finding ways around "the time problem"; that is, with fewer than 20 employees, no one can be spared for a half day of training. In addition, these employers must be helped to recognize what training is needed and when, to establish training priorities, and to have access to resource directories on the diverse kinds of special services that small businesses need.

The key is to identify creative ways to pool the limited resources of a group of small businesses. One favored approach is to work through real estate developers' corporate parks and local chambers of commerce, which act as education and training brokers. Community-based trade associations could serve a similar purpose, by pooling funds and expertise to provide education and training services to firms that could not afford them on their own.

Funding sources for these services could include federal and state taxes; taxes on employers' payrolls; as well as employers' and employees' direct payments.

Second-Chance Programs. Current labor market pressures provide a unique opportunity for states to use second-chance programs (e.g., JTPA, work-welfare programs, adult literacy programs) in promoting workplace-based training programs in companies. JTPA programs and welfare grant-diversion programs should combine structured on-the-job training programs that include formal classroom training with clearly defined competencies necessary for effective job performance. These

new-hire training programs would provide useful models for employers in establishing future hiring and training efforts. They would also encourage public contractors such as community colleges and vocational education centers to link on-the-job training and vocational classroom training to second-chance programs in their proposals.

Promote Performance-Based Quality Standards

States should shift the emphasis from process-based quality standards, which tend to focus on a program's internal administration and structure, to performance-based quality standards. The idea is to measure *what* people have learned, not *how* they have learned it. These new standards would take into account the only outcomes that really matter. How competent are the program's graduates? How productive? How employable? And how much are they earning on the job?

New Outcome Measures. To implement this new measurement system, states will have to establish competency-based hiring and training systems within companies and government-sponsored training programs. Also needed will be new competency-based performance outcome measures for all secondary vocational education and employee training programs, as well as new employment and earnings outcome measures for all second-chance and postsecondary vocational programs.

Develop Demand-Driven Credentialing Systems

A demand-driven learning system requires a demand-driven credentialing system, controlled by business and industry with participation by postsecondary institutions and labor. The system would provide learners, especially adults, with a realistic choice between postsecondary education degree programs and more work-related credentials. The new system would be based on the certification of individuals rather than accreditation of institutions and educational programs (see expanded discussion in the previous section).

Proponents said that, among other benefits, the revised credentialing system would help reduce marketplace barriers, encourage entrepreneurs in both the public and private sectors to respond to human-resource-development needs, and result in improved quality control. The distinguishing mark of these demand-driven credentials would be their work-relatedness.

Tighten Admissions Standards

A top priority must be to develop more realistic admissions requirements to college and university degree programs. Admissions requirements must be raised in order to increase graduation standards and to redirect the unqualified into programs more appropriate to their needs and qualifications. Of course, a system that encourages lifelong learning would be flexible enough to allow individuals to reconsider college attendance as they grow older and their individual circumstances change.

Currently, however, 50 percent of entering college freshmen do not graduate; the nation would be better off if they had been steered to more appropriate programs from the start. More realistic admissions requirements would also result in the development of more relevant human-resource-development programs, higher standards of performance in degree-level curricula and

substantially improved cost effectiveness throughout the system.

Provide Meaningful Records

The success of a demand-driven system depends on ready access to accurate information—about both learners and providers. More meaningful records are needed to document individual achievement and competence achieved over a lifetime. These records, reached by sound assessment, should be provided either in certificate or simply in descriptive form.

In addition, the performance outcomes of programs or divisions of education and training institutions should be accurately measured and reported. Furthermore, users (employees and those who pay for training and education) must have ready access to this information if a demand-driven supply system is to work.

Establish Competitive Contracting Policies

A demand-based approach also requires improving competitive contracting policies and procedures for all public vocational education and training programs. The priorities should be to separate program administration from program delivery, and to review technical contracting rules and procedures. States should develop new, more intelligible models for competitive contracting. And they should take steps (technical assistance for program administrators and organizational development programs for public and private contractors) to promote the implementation of the models.

Tighten Licensing Rules

States should establish minimum performance benchmarks that education and training providers must exceed to continue receiving public funds. Statewide sanctions for nonperformance by education and training providers should be strengthened, if necessary—and enforced. At a minimum, states should provide full funding for the enforcement of existing licensing rules, and licenses should be limited to stated time periods.

* * * *

Answer 4: Increase Public and Private Investments

Finally, conference participants discussed methods of funding postsecondary education and training. Participants agreed that because of severe budget constraints at the federal level, the need to create financing options has never been greater.

The current system is confusing. As Janet Johnston of ASTD pointed out in her background paper, "one of the difficulties in assessing the adequacy of adult education, training and retraining for American workers involves funding information. There are, in fact, almost as many funding streams as there are programs." (Table 2 provides an overview of the sources of higher education funding.)

In considering how to finance the education and training of workers and potential workers, conference participants supported the notion that education and training providers, including employers, should help each individual identify a package of financial resources. These would cover not only the individual's education and training needs but also the services that support those education and training activities. Within that general framework, participants addressed several innovative approaches to human resource investment.

Table 2
Current Funds for Higher Education Institutions (in millions)

Tuition and fees	$21,284
Federal government	11,509
State government	27,583
Local government	2,387
Endowment earnings	2,096
Private gifts, grants, and contracts	4,896
Education activities	2,126
Auxiliary enterprises	10,100
Other funds revenues	10,490
TOTAL	$92,471

Tie State-Supported Human Resource Development to Economic Development

In recent years, many state governments have assumed responsibility for helping workers respond to employer needs and for developing skills that will help to attract new industries and businesses to their state.

Customized Training. One popular form of state support is employer-specific skill training (ESST), also called "customized training." These programs often are associated with state economic development efforts aimed at attracting new firms and plants from outside the state. An example of this approach is The Bay State Skills Corporation, which completed its seventh year of operation in 1988.

Some states combine general revenues and/or dedicated taxes with federal JTPA funds to support employment and training services in response to their individual needs.

Special Levies. Others derive receipts from a tax imposed on employers, usually a special levy added to the company's unemployment insurance payroll taxes. California, Delaware and Rhode Island are among the states that have enacted these forms of training "taxes." In California, for example, the Employment and Training Panel (ETP) is subsidized through a 0.1 of one percent tax on the amount of employer contributions to unemployment insurance. Annual appropriations to the Panel by the state legislature have grown from $26 million in fiscal year 1983 to more than $60 million in fiscal years 1986 through 1988.

The Prairie State 2000 Model. The Prairie State 2000 Authority, established in Illinois in 1983, is another example of a state project designed to establish training programs that foster job creation, reduce employer unemployment costs and meet the needs of the economy for skilled workers by providing job-linked training for unemployment insurance (UI) claimants and potentially displaced workers who could become such claimants. Initially established as a means of operating a system of individual training accounts, the mission of the

Authority was revised in 1985 when two programs were added.

One program, the Individual Training Assistance Program, offers financial assistance to experienced UI-eligible workers who want to upgrade their current skills or acquire new ones. Both employed and unemployed workers are eligible for this program. The Employer Training Assistance Program makes grants or loans to eligible employers so they may provide training to employees in fields with critical skill shortages. In fiscal year 1988, the Authority issued 56 grants ($927,000) and 8 loans ($58,000) covering 9,735 workers.

Iowa's Innovations. During the 1983 recession, Iowa adopted an innovative fundraising approach that called for community colleges to sell training certificates on bond markets to finance the upfront costs of training for new jobs and upgrading facilities. The resulting increases in payroll and property taxes were used to pay off the bonds. The program started as a way to attract new business to the state, but it ended up providing more than $80 million worth of training to thousands of employees in more than 300 companies.

More recently, Iowa passed legislation that uses state lottery proceeds to finance a preventive retraining program.

A Question of Criteria. Conference participants also considered the criteria that states might want to consider in selecting companies for training dollars. Favored

companies should be those which: have financial need; have a major economic impact on the state and community; have employees qualified to be trained; can enable the state to compete more effectively in global markets; will involve a postsecondary education institution in the training; have identified the evaluation techniques that will be used to determine the effectiveness of the training for the employee and employer.

Participants also raised several questions that state officials should address when considering the allocation of funds. Will the large corporations receive all the funds? Will the money be used to facilitate the creation of a non-union workforce? Who will handle the money? When should the company receive the money? Should the skills be general or non-specific?

Use Labor/Management Agreements to Promote Training

In recent years, serious economic dislocations in such industries as automobile manufacturing have led to new programs of retraining and upgrading developed as part of union contract negotiations. These opportunities should be expanded.

Frequently in these contracts companies pledge a specific amount (e.g., 5 cents per hour of wages paid to all hourly workers in the firm) to subsidize the new programs. Unions, in turn, contribute to the company-sponsored efforts by foregoing or "giving back" wage increases during the bargaining process.

Examples of this kind of collective-bargaining response to technological change include the agreements worked out between the United Automobile Workers (UAW) and Ford, General Motors, and Chrysler companies. Similar settlements have been negotiated between the Communications Workers of America (CWA) and American Telephone and Telegraph (AT&T), as well as with the independent regional Bell companies following the 1984 divestiture of the Bell System.

These programs are all designed to assist industrial union members acquire new skills that will aid them in finding jobs in other industries, if that becomes necessary, or to help them to retain their current jobs, as new technology comes on line.

Establish Business-Government Skills Corporations

Some states have encouraged the development of skills corporations, funded through a 50–50 match from companies. Often, these skills corporations are designed to pool resources to address the needs of smaller companies.

Increasingly, large companies are paying part of the training costs for their smaller suppliers. With the increase in outsourcing of products and services, companies find that these investments are essential to guaranteeing high-quality performance from their suppliers.

All of these programs share one thing in common: they depend on institutional awareness of the importance of ongoing human resource development. Before a governor will propose or support a tax increase or before a CEO will increase funding for a skills corporation, the leadership must be convinced of the long-term wisdom—indeed, necessity—of such investments. It is up to postsecondary providers and learners to build that awareness.

Increase Private Sector Investment in Skills Training

American business should increase its investment in skills training. Despite the laudable efforts of many companies, the bottom line is this: more companies must make more training more available to more people.

In addition to suggesting ways in which small businesses can pool resources to make training and retraining available to their employees, conference participants urged larger companies, perhaps in conjunction with labor unions, to pre-pay employees' tuition. This would assure opportunity for participation by lower-paid workers who have not participated in company-reimbursement programs because of an inability to front the tuition payments.

NEXT STEPS

This publication culminates a year-long effort by the National Governors' Association, American Council on Education, The College Board, and Council for Adult and Experiential Learning. Our goals were to identify the skills that American workers will need in the future and to recommend steps that will make it easier for employees to attain those skills.

In one sense, then, the Little Rock conference concludes our project. But in a more fundamental way, the meeting represented not an end but a beginning.

As Governor Clinton challenged participants at the start of the conference, "It is absolutely critical that we all leave here with a clear sense of something we can do that's different or better than what we were doing when we came."

The dozens of recommendations summarized in the preceding pages provide one measure of our project's success. We believe we identified and discussed some exciting new approaches for improving the productivity of the American workforce.

But even more important than the specific proposals were the consensus-building efforts that began during—in some cases before—the conference. More than 30 states sent teams to Little Rock. Teams ranged in size from one member to about a dozen—and included key state officials, educators, business executives and labor leaders.

For some, the conference provided an opportunity to heighten awareness of the challenges and to learn about innovative solutions that have succeeded elsewhere. Armed with this knowledge, these participants are starting to build the alliances needed to improve the worklife learning systems in their own states.

And for the states that were unable to be represented in Little Rock, we hope these *Highlights* serve as a reference point in developing their own strategies and action agendas.

Hence, the success of our project depends on the active participation of many players—policymakers, educators, labor leaders, business executives and learners in all 50 states. Success will be measured in years, not months. It will be measured by productivity improvements that enable American workers to compete effectively in world markets. And ultimately, success will be measured by the prosperity of future generations of American workers.

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Little Rock, Arkansas

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State Representative
Governor's Office
Little Rock, Arkansas

Mr. Adam Kernan-Schloss
Kernan-Schloss Associates
Alexandria, Virginia

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AGENDA AND PARTICIPANTS

SUNDAY, MAY 14, 1989

Special Session: An Orientation to Strategic Planning and Policy Development

James Souby, Executive Director
Council of State Policy and Planning Agencies

Welcoming Remarks and Introductions

Donald M. Stewart, President
The College Board

Keynote Address

The Honorable Bill Clinton
Governor of Arkansas

MONDAY, MAY 15, 1989

State Team Meetings

Hearing Panel and Discussions: The Qualified Workforce: What They Need to Know and How It Will Be Achieved

Chair:

The Honorable Bill Clinton
Governor of Arkansas

Panelists:

Douglas Fraser, Professor of Labor Studies
Wayne State University

Edward B. Fiske, Education Columnist
The New York Times

Karen Bowyer, President
Dyersburg State Community College

Respondents:

Sue E. Berryman, Director
The Institute on Education and the Economy
Teachers College, Columbia University

Maxine Brandenburg
Vermont Business Roundtable

Jerry W. Miller, Director
Washington Office
American College Testing Program

MONDAY, MAY 15, 1989 (Con't)

Issue Groups

WORKFORCE LITERACY

Co-Leaders:

Forrest Chisman, Director
Project on Adult Literacy
The Southport Institute for Policy Analysis

Douglas Whitney, Director
General Educational Development Testing Service
American Council on Education

LABOR SHORTAGES

Leader:

Ellie Greenberg, Executive Director
Pathways to the Future

THE AGING WORKFORCE

Co-Leaders:

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The National Council on the Aging, Inc.

John M. Corman, Executive Director
The Gerontological Society of America

DOCUMENTATION AND CREDENTIALS

Co-Leaders:

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Center for Adult Learning and Educational Credentials
American Council on Education

Jerry W. Miller, Director
Washington Office
American College Testing Program

QUALITY CONTROL AND EFFECTIVENESS OF PROVIDERS

Co-Leaders:

James R. Mingle, Executive Director
State Higher Education Executive Officers

Dorothy Fenwick, Executive Secretary
Accrediting Commission of the National Association of Trade and Technical Schools

MONDAY, MAY 15, 1989 (Con't)

PREPARATION OF YOUTH FOR WORK

Leader:

Audrey Carr, Associate Superintendent for Vocational Education
Kentucky Department of Education

USES OF TECHNOLOGY IN EDUCATION OF THE WORKFORCE

Co-Leaders:

Harvey R. Stone, Special Assistant to the President
University of Delaware

Dee Brock, Vice President
Public Broadcasting Service
Adult Learning Services

Hearing Panel and Discussion: Easing the Way for Learners and Providers

Chair:

The Honorable Gloria B. Cabe
State Representative
State of Arkansas

Panelists:

George E. Ayers, President
Chicago State University

Sam Strizich, Director of Human Resources
U.S. West Communications

Robert Nielson, Assistant to the President for Higher Education
American Federation of Teachers

Respondents:

Ivan Charner, Director of Research
National Institute for Work and Learning
Academy for Educational Development

Robert G. Sheets, Director
Human Resources Policy Program
Center for Governmental Studies
Northern Illinois University

Kenneth Lay, Director
Education External Programs
IBM

Nancy Schlossberg, Senior Fellow
American Council on Education and The University of Maryland

MONDAY, MAY 15, 1989 (Con't)

PROVIDERS AND OFFERINGS

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Jeanne M. Klein, Associate Director
Keep America Working Project
American Association of Community and Junior Colleges

Perry L. Turnbull, Chairman of the Board
Capital City Colleges

INFORMATION, OUTREACH, AND SUPPORT FOR LEARNERS

Co-Leaders:

Juliette Noone Lester, Executive Director
National Occupational Information Coordinating Committee

Carol B. Aslanian, Director
Office of Adult Learning Services
The College Board

ALTERNATIVE STRATEGIES OF FINANCING

Leader:

Kristine Coryell, Chief Executive Officer
Prairie State 2000 Authority

WELFARE TO WORK

Leader:

Carol Rasco, Executive Assistant for Governmental Operations
Office of the Governor, Arkansas

NEEDS OF SMALL BUSINESS

Leader:

Lois Lamdin, Executive Director
Business Development and Training Center

INCENTIVES TO INVEST IN TRAINING/EDUCATION

Leader:

Robert G. Sheets, Director
Human Resources Policy Program
Center for Governmental Studies
Northern Illinois University

MONDAY, MAY 15, 1989 (Con't)

PARTNERSHIP AMONG BUSINESS, LABOR, GOVERNMENT AND EDUCATION

Co-Leaders:

Pamela Tate, Executive Vice President
Council on Adult and Experiential Learning
Joint Ventures Center

David S. Orr, Former Vice President for Marketing
Ameritech Services

State Team Meetings

Case Studies From North Carolina, Iowa and Michigan

Moderator:

Evelyn Ganzglass, Director
Training and Employment Program
National Governors' Association

George Autry, Director
MDC, Inc. (North Carolina)

Jeff Nall, Administrator
Iowa Department of Economic Development

Glenn Stevens, Executive Director
Presidents' Council of Colleges and Universities (Michigan)

An Action Agenda: A Conversation Among the Sectors

Chair:

Morris Keeton, President
Council for Adult and Experiential Learning

Panelists:

David Gillette, Executive Director
New York Job Training Partnership Council

Robert Atwell, President
American Council on Education

Dorothy Shields, Director
Education Department
AFL-CIO

Richard Fluri, Director
Human Services
Scott Paper Company

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The National Governors' Association, founded in 1908, represents the Governors of the 50 states, the commonwealths of the Northern Mariana Islands and Puerto Rico, and the territories of American Samoa, Guam, and the Virgin Islands. Its missions are to influence the shaping and implementation of national policy and to apply creative leadership to the solution of state problems.

The American Council on Education, founded in 1918, represents all segments of postsecondary education and serves as its national coordinating body.

The Council for Adult and Experiential Learning is an educational association founded in 1977 to advance experiential learning and improve services to adult learners.

The College Board is a national, non-profit association with a membership of more than 2,500 colleges and universities, secondary schools and education associations and agencies, serving students, schools and colleges through programs designed to expand educational opportunity.

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American Society for Training and Development
Association of American Universities
Association of Governing Boards for Universities and Colleges
Association of Independent Colleges and Schools
Association of Urban Universities
Coalition of Adult Education Organizations
Council of Chief State School Officers
Council of Independent Colleges
Council of State Governments
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Council on Competitiveness
Education Commission of the States
Gerontological Society of America
Interstate Conference of Employment Security Agencies
Jobs for the Future
National Alliance of Business
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Northeast Midwest Institute
Partners for American Vocational Education
Public Broadcasting Service
Southern Growth Policies Board
State Higher Education Executive Officers
Work in America Institute